

Community-Government Partnership and Sustainability of Rural Water Programmes in Anambra State, Nigeria

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Abstract

In a Multi-Indicator survey published in 2013 by the National Bureau of statistics, has shown that over 70 million Nigerians have no access to safe water and thereby projecting Nigeria as the third globally ranked number of people without access to safe water. However, the Nigerian constitution as contained in the second Draft of the National water Resources Bill of April 2007 accords jurisdiction over rural water supply to states in conjunction with the benefitting communities. The unbalanced community-government partnership in relinquishing responsibilities in terms of ownership, control, improved service delivery and as well as provision of the required technical know-how, has become a principal factor constraining sustainable rural water projects in Anambra State for so long. It is evident from a deductive rational survey with what is obtainable in Nigerian rural water projects as against 2007 constitutional provision that disclosed dormant rural water policy propagation across the states and its docile forms of practice. Rural water projects are dynamic in nature, the choice and use of good management approach or combination of approaches is always circumspect. Community-government partnership is a worthwhile management approach that acquaint with the strength and weaknesses inherent in other management methods, and is able to use these effectively and circumspectly. This paper takes detailed explanations at factors weighing-down the success of a sustainable water provision in the rural communities in the State. We proffered a prolific approach to contain the plaguing constraints in the essential elements of planning, participation, project implementation and water policies of the State. The idea in community-government partnership is to strike a balance where the objectives of having sustainable rural water projects are achieved through proactive co-operation.

Keywords: Community-government partnership, Rural water supply, Sustainability.

1.0 Introduction

The African Development Bank Group strategic plan for 2003 to 2007 in response to the Africa Water Vision and the UN Millennium Development Goals on water supply has launched rural water supply with the view to accelerating access to water supply services in rural Africa. Sustainable safe water quest by the UN Millennium Development Goals programme, is just but a stepping-stone towards full global coverage by 2025 as contained in the Global Water Partnership (GWP) framework for action and the African vision. The 2025 targets include irrigation, industrial effluent, wastewater treatment, water resources and environmental management. In order to achieve these 2025 targets, the former initiative has to be met and in so doing, will require a rapid increment at the rate at which additional people have been gaining access in the last decade in order to achieve these targets. WHO/UNICEF joint programme for water supply 2010 end of the year update report has also stated that the target for drinking water has been met in 2010 by halving the proportion of the population without sustainable access to safe drinking water between 1990 and 2015, thereby reducing the proportion of the population still using unimproved source at only 11 percent estimate. Global coverage of water supply sources is 90% or more in Latin America and the Caribbean, Northern Africa and large parts of Asia, 61% in sub-Saharan Africa, Coverage in the developing world overall stands at 86% and 63% in countries designated as least developed, (WHO/UNICEF Progress on Drinking Water and Sanitation 2012 update). The percentage coverage is depicted in the **figure 1.1** beneath it is **figure 1.2** which has also shown Nigeria to be among the two-third of the global population without an improved drinking water source in 2010 (WHO/UNICEF Progress on Drinking Water and Sanitation update, 2012).

With over 70 million people living in Nigeria without access to safe drinking water and adequate sanitation facilities, it is so daunting considering the efforts made by various international donor agencies, government and numerous research contributors on rural water projects. In spite of all these unrelenting efforts of these concerned groups these problems still persist. Lockwood H, (2004) stated that among the United Nation's

Millennium Development Goals (MDGs) for the year 2015 is a commitment to "reduce by half the proportion of people without sustainable access to safe water". Most of the built water sources in Anambra State are not functioning at the required capacity and this is a hindrance in attaining a sustainable rural water supply service in the State. On the same theme, Water and Sanitation Rotarian Action group (2012) attributed these high level of failed water projects few years after they were built to many factors ranging from-(1) Selection of inappropriate technology, (2), The Myth "just build it and it will work forever". (3) Poor water point siting (4) Lack of on-going operations and maintenance training, (5) Lack of spare parts. (6) Poor or changing water quality, (7) Vandalism, theft or conflict, (8), Lack of finance for operation and maintenance ,(9) Ineffective community water committees., (10) Weak follow-up and project supervision by project sponsors, (11) No long-term project monitoring and evaluation.

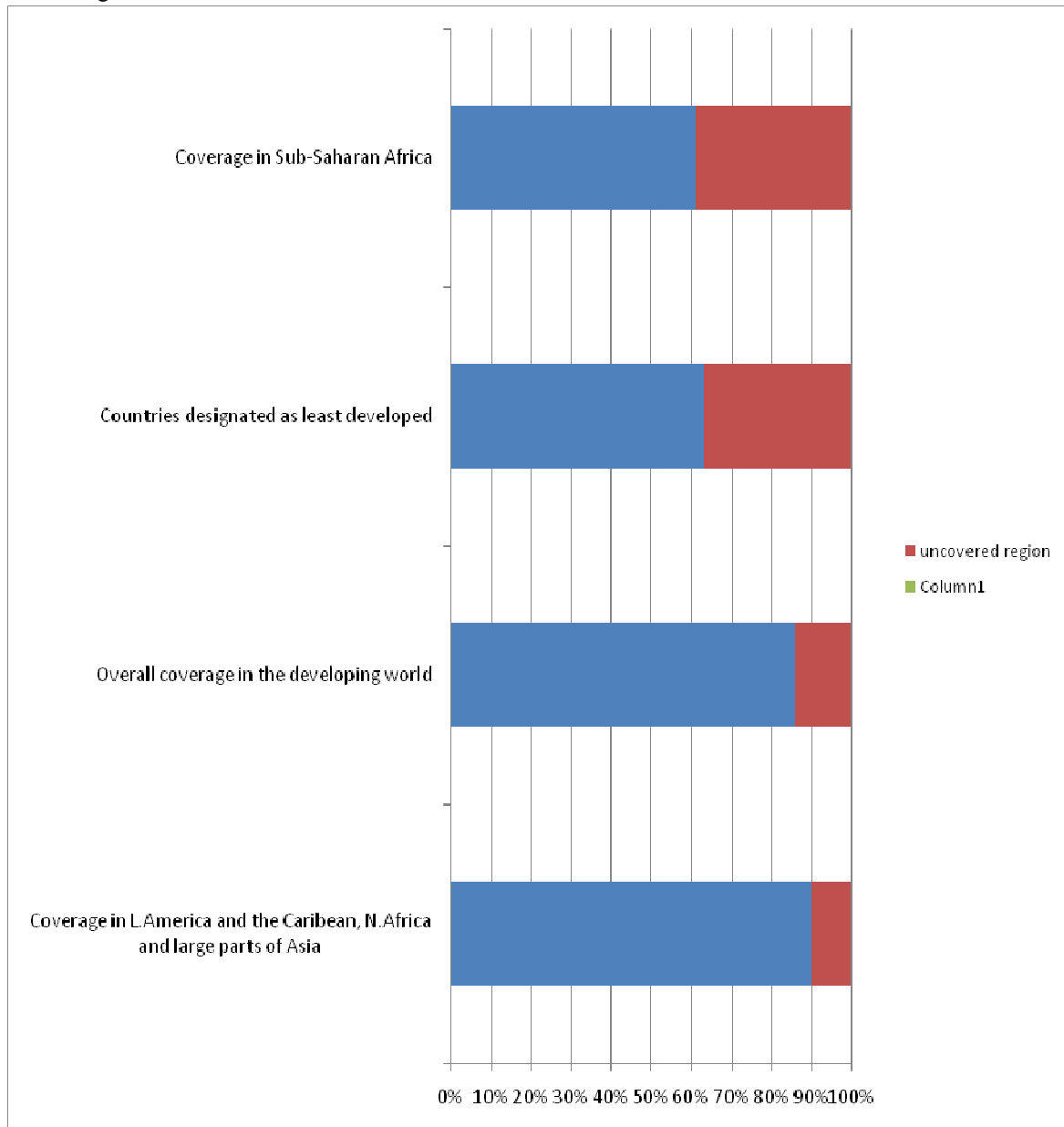


Figure 1.0 Global Coverage of Water Supply Source. (Source- WHO/UNICEF Progress on Drinking Water and Sanitation 2012 update)

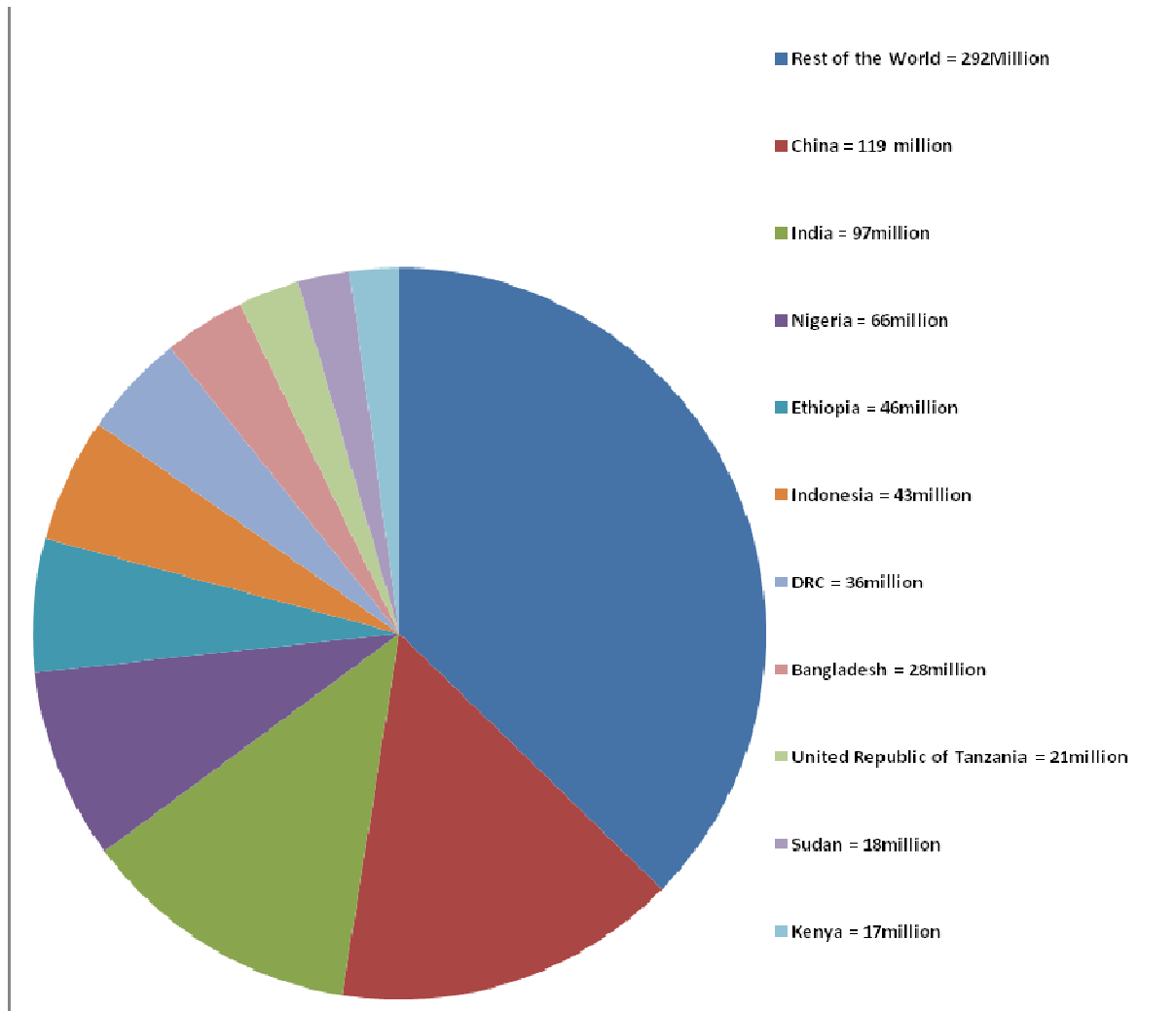


Fig.2 Two-third of global population without an improved drinking water source in 2010. (Source- WHO/UNICEF Progress on Drinking Water and Sanitation 2012 update)

Equivalent studies in Anambra State have found that only one fourth of water supply systems function one-year after their construction. This kind of performance has become a prevalent challenge in global rural water projects and has poised a lot of unresolved questions among many researchers. It has been noted that these poor performance characteristics of these water projects in Anambra State are based on ineffective use of post-construction strategic approaches and poor implementation of pre-project planning procedures. In the 1990s, it was generally accepted that pre-project planning procedures for rural water supply programmes needed to be more demand-driven (community centered)-where water users pay a share of the capital costs of their water projects and all subsequent operation and maintenance costs. In contrast to this generally accepted approach of 1990s, it is unrealistic to expect that rural communities can be left to their own devices after a water project is completed, and that for rural water supply systems to be successful, communities need some post-construction technical assistance (Lockwood , Komives et al, 2008). This study takes a detailed explanation at why we have been unable to provide a sustainable water project in the rural communities in Anambra State, operating solely on a community centered approach. However, we were able to integrate active government bodies' participation within the operating community centered approach for effective performance of rural water projects in the State.

2.0 Historical view: Rural water supply and divisional roles of governments in sustaining water schemes in Nigeria.

Report on the National water resources Bill as compiled by the Federal Ministry of Agriculture and Water resources Second draft of April 2007 report, highlighted and explicitly explained the constitutional responsibilities of different arms of the government as regard to water schemes and management. The report reads that under the constitution of Nigeria, water supply services are not included in the exclusive legislation list in the second schedule (for powers reserved for the National Assembly).The constitution accords Jurisdiction over water supply services to the States. The provisions of this part aim to uphold State responsibility for the

provision of water supply and sanitation services, while at the same time reflecting the important federal role of policy development, coordination, setting of standards and monitoring, and providing a common framework within which State legislation can be derived. Project funding was also encompassed as a Federal Government role while the responsibilities of the States and local Governments including the regulatory environment and obligations of water services, and the formulation of water services development plans. Furthermore the constitutional provision for Federal management of water is reflected in the scope of the bill and other principles adopted include, efficiency, beneficial use, sustainability and accountability.

This second draft on National water resources Bill serves as an exposition document that aligns the rural water supply challenges as a local government responsibility and also introduces an approach for management of these water schemes.

- Local Governments are responsible for the establishment, operation and maintenance of rural water supply schemes in conjunction with the benefiting communities.
- Local Government water supply agencies shall maintain records of the extent and quality of rural water supply services and submit other state government agency notified by the state for this purpose in accordance with regulations under this Act.

In this report as drafted by the federal ministry of Agriculture and water resources, pin-pointed on Participatory engagement of the benefiting communities along with the local governments in establishing, operation and maintenance of rural water supply schemes. Though, these community involvements were not extended to areas of developmental planning.

3.1 Supply-driven and community-centered approach on rural water sustainability: - Approach transition and shortfalls in rural water projects in Anambra State.

The supply driven approach is a strategic approach where the government takes sole responsibilities of providing water to its citizenry. This approach to rural water system has sequentially resulted in services that have not been sustained as government support to rural water system solely focused on designing and constructing systems based on community needs. Government tends to pay more attention to building new facilities than to ensuring the use of existing ones (Sara and Katz, 2005). Supply driven approach laid more emphasis on meeting physical targets and giving less time to develop a sustainable water supply (Saxen-Rosendahl, 1995). In this system, there are a lot of assumptions that characterize the system, where the beneficiaries are assumed inept to create the required change. It also took assumption of homogenous or similar target groups. This approach also prioritizes the beneficiaries need themselves excluding the users view on need priorities. This approach is characterized by its own sustainable flaws ranging from poor project planning, implementation, cost recovery, operation and maintenance (O&M), and asset ownership are poorly defined and communicated. The water and sanitation decade of the 1980's has shown that achieving a long-term benefit from water supply programmes involves much more than designing and building facilities. In the quest to achieve this long-term benefit, emerged an approach that focused on the importance of involving the community in all aspects of service delivery, the use of appropriate technologies and this approach is termed a community centered approach. The conception of community centered approach of managing rural water projects limit's the role of governments as service promoter rather than provider. This strategy places importance on community driven development, appropriate technologies and levels of service, and user's financial contribution towards the cost of construction and routine operation and maintenance of the water projects.

The provision of portable water to large population of Nigerians in rural communities with a limited access to it remains a great challenge in meeting up with the objectives of the millennium development initiatives. Deducting as to what is obtainable in Nigerian communities it may not be a harsh assertion to rightly put that these government policies on water are either inconsistent or do not exist. Extensive researches have been made over years which probably have spanned to double decades of trial and error in the rural water supply sector and these have resulted to a paradigm shift from the traditional approach of management to a community centered approach. This general transition from the supply-driven to demand-driven approaches also was a concerted effort taken to contain the problems inherent with the traditional management approach which could not contain the basic water needs of the rural communities.

3.2 Community centered approach and sustainability in Anambra State:

Two decades of experience with participatory approaches, decentralization, cost-sharing and technological adaptation mean that donors, NGOs and national governments have all they need and that demand-driven community-led approaches delivers better results than the supply-driven government led models that prevailed up to the 1980s (Lockwood, 2004). In rural areas, community management enables communities to manage and maintain their supplies. In the community centered approach strategy, Communities are no more recipient. They are the owners of the project and supposedly work in conjunction with the local government council bodies to maintain long-term sustainability of water supply services. In this approach, it is left for the communities involved to assess and prioritize their needs under heterogeneous conditions. Saxen-Rosendahl (1995) in her

paper titled Demand driven approach for sustainability further described the approach as a development strategy where the people themselves are expected to take the initiative and responsibility for improving their water supply situation rather than being passive recipients of the government services. Under this operational strategy, the programme made use of prepared promotional materials in the form of modules to facilitate the communities toward water supply development and sustainability.

Module I: Covers policy issues governing water supply development and various development partners and how they relate to one another. Just like what was explained in the water resource bill drafted by the federal ministry of Agriculture and water resources, pin-pointed on Participatory engagement of the benefiting communities along with the local governments in establishing, operation and maintenance of rural water supply schemes. The policy identifies two partners and their individual roles as regards water supply were properly relinquished.

Module II: This unit summarizes all the steps and stages of community preparations, towards development of a water supply. This module discusses all that need to be done at the planning phase. At this Community consultation stage, where community members, including women, disabled people and children are made to plan their water system. The communities start to plan their water supply system by preparing maps of their villages indicating physical structures and natural resources. All community members are well informed of the projects due to their participatory role of each member in the planning process and were all involved in the decision making. Proper understanding of this module generates ownership by the community and a sense of accountability for implementing action plans.

Module III: Technological Options- highlights on the technological options used within the programme area.

Module IV: Community pipe water supplies- provide guidelines on how to develop and run community owned piped water supplies.

Module V: Health education- discuss the importance of health education, water related problems, diseases and possible solutions.

Module VI: Self management support- presents back-up support systems for sustaining water projects on self – help basis.

Module VII: Hand pump’s maintenance and spare parts distribution system. Provides guidelines on operation and maintenance of hand pumps used in the programme area. It also discusses spare parts procurement and distribution system.

Module VIII Training- summarizes the information on training of user groups and the authorities involved in operating and maintaining the developed water supplies.

Danert K. and Flower C, (2012) argued that there is an urgent need to consider the influence of people, politics and the environment to a much greater extent in rural drinking water policies and interventions. In their publication titled people, politics, the environment and rural water supplies where they targeted three distinct audiences.

1. Those working in rural development or agricultural development with limited knowledge on current thinking in rural water supply.
2. Those with a water supply background who want to understand more about rural dynamics, politics and the environment.
3. Extension staff who have to deal with rural realities on daily basis, including rural water supply improvements, but rarely find accessible and short publications that brings these diverse aspects together. They considered key aspects of rural realities including poverty, remoteness and livelihood strategies.

Strongly emphasizing also on rural remoteness by these writers, which tends to come with lack of economic and political integration, also has a huge bearing on people’s ability to demand services. In the same vein, due to poor road infrastructure, the more difficult it can be to ensure that modern water supply services with pumps or pipes obtain spare parts and are maintained.

Danert K. and Flowers C (2012), posit that on paper, community management usually includes training and establishment of local communities, but in reality the training and handover may or may not be implemented. The government or the funding bodies considers the project over once the infrastructure has been built. In this approach, sustainability of rural water supplies has long been denied the much needed attention in many areas most especially on the Asset management domain of these rural water projects. Conversely, because of numerous practical flaws attributed with community management approach, it is now being known and referred to as ‘built-and-forget approach’. Apart from the module I, the remaining seven modules as advocated by Saxen-Rosendahl (1995), on demand driven approach for rural water sustainability are grossly violated in practice and clearly call for a more purposeful management option in Nigerian environmental context. Communities are not properly engaged in advocacy that will be aimed at educating the public about the intention of the government to provide target communities with portable water supply. The benefitting communities are not well informed on the working plan/decisions but rather were imposed with such project decisions. Proper understanding of basic water services principles and technical limitations such as the nature of the groundwater cost of construction and operation, maintenance, has been a serious issue that has been long neglected over the years. These inadequacies

in choosing technological types in a particular geographical region without first considering its appropriateness have resulted to a lot of abandoned water projects in the country, in the sense that most of these underground water borehole systems go off shortly after commissioning due to technical supports and administrative irregularities. A rural water project decisions should not be considered in isolation behind the benefitting community members, but rather will be mediation between the benefitting communities and the funding agencies. According to Danert .K and Flowers C (2012), rural communities tend to have a fewer opportunities to influence government policies compared to people living in urban areas, and their voice tends to be weak in national fora which result to subsequent exclusion in decision making. Poor communication with the water authority has bred lack of self commitment in the part of the benefitting communities in giving self support towards rural water services. No approved human resources development process in water resources bill contracts, that will formally review the human resources development progress on quarterly or six monthly basis including ongoing training for the local beneficiaries. Without the availability of ongoing and appropriate training supports, it is then very unlikely that these rural water projects will be sustainable in the long run. Lack of established regular meetings with the rural water service provider to ensure issues are properly covered, monitoring regularly operational efficiency of these water facilities by using an appropriate identification of functional water points operating at full capacity at a particular time of inspection or monitoring. Most of the non-functional water points are due to inappropriate use of technology during designing and construction of these water projects thereby resulting in frequent breakdown, long repair periods as a result of unavailability of spare parts and lack of qualified technicians.

However, Community centered approach in the State are bound with practical difficulties in broad terms such as inefficient pre-project planning, implementation complexities, overlooked influences of evolving technology. Lockwood .H, (2004) opined that for a community management to be 'scaled up' requires attention not only to the community but also and as importantly, to the enabling environment in which the community exists: the laws, policies, institutions and actors who support and build on the community's own capacities.

Though this approach has been found to be widely practiced in Anambra State, but these inherent complexities are seriously militating against success replication in many rural water schemes in the State. The prevalent problems in practice of community centered approach in the state in contrasting view with the standard outlined principles of community centered management approach has indicated a lot of lapses and complexities in management approach used in the State. It is expected of in this approach a kind in which everyone who has interest in the intervention has a voice, either in person or by representation. In the same vein, a good number of researchers has identified also that there is a growing recognition in developing countries that community participation in water projects is a necessary strategy in sustainable water supply. It has become a strongly politicized issue in the State; and communities participating in community project decisions have not been successful over years now. It has been marred by the activities of some special political interest groups, not capturing community opinion as a unit. Many water projects have been abandoned in many rural communities not because of abundance in water sources but rather as a result of imposition of project decisions in these rural communities without due consultations. Gross neglect has been taken on the merits of participatory planning in the State which includes (1) Credibility (2) Transparency, (3) Equity in representation (4) feeling of ownership (5) Wide horizon of Ideas and contributions. These merits are the needed sustainability tools and have been compromised by the State for so long. The problems of rural water supplies in Anambra State lies with poor translation of basic principles of community management approach in practice which includes- participation, control-over decision making, ownership and cost sharing. It's a truism that community management approach have matched age-long success in practice in some developing countries. We attempt to explain its limitations in sustaining services in Anambra State. In an attempt to provide solutions to some of the challenges plaguing community centered approach in Anambra State, summary of these constraints were noted as encompassed in the basic principles of community management approach.

4.0 Anambra State Rural Water Supply and Sanitation Agency (RUWASSA): Its contributory roles in water supply and Sanitation Programmes Propagation in the State.

Anambra State Rural Water Supply and Sanitation Agency (RUWASSA) is a state government parastatal that started to exist since 1987 in Enugu State with basic aim geared towards eradicating guinea worm outbreak and other water related diseases in the region. Though it started its operations in Awka in 1991/1992, following the creation of the present Anambra State in 1991 but then with the name WATSAN (Water and Sanitation Project). It was later elevated to an Agency Status with the name RUWASSA. RUWASSA has long been passive in the Ministry of health, but with the recent creation of the State ministry of Public Utilities, water resources and Community development. It is now one of the bodies that make up the Ministry. Its activities are basically in rural communities though often times their activities are extended to small towns. Activities of RUWASSA centered on WASH (Water, Sanitation, and Hygiene) in other to combat water borne and excreta-related diseases, and thereby improving the living condition of the populace. To combat and reduce these incidences of poor

water supply and sanitation related diseases in the rural areas, the RUWASSA group in the state have been conducting hygiene and health education to communities and schools in the rural areas in the state. There aims also are to increase in access to safe water sources through provision of water facilities and good sanitation facilities in rural communities of the state. RUWASSA have partnered with the European Union and many other donor agencies in implementing many water projects in the State. The recently completed ninth EDF water projects in the State, is such a good example of such partnership in execution and implementing activities of the agency. In that respect, The Ninth European union funded rural water supply and sanitation projects of **2006** in Anambra state was done in five local government areas in the state, Aguata, Anambra East, Ogbaru, Idemmilli South and Nnewi North. The criteria for selecting these eventual communities was not captured in this study but speculated to be based on the need of the geographical population. In implementing these projects, private sector contractors, technical consultants' as well as water and sanitation experts were used. (State water board officials were not used to implement these European Union rural water project plans). However, the RUWASSA was the only state government parastatal and also one of the UNICEF- assisted offices that were actively involved in executing this UNICEF/EU rural water projects in the state. These ninth European Union funded projects were not all that successful as a result of some limitations, which some experts believed was due to fund-sharing outline used. These fund-sharing ratios were as follows, **Unicef /EU 47.5%, FGN 25%, State Govt 12.5%, LG 10%**, and benefitting community **5%**.in other words it is also pertinent to note that during the end of the ninth EDF projects, another fund-sharing ratio was introduced omitting federal government, local government and the benefitting communities from the fund-sharing ratio. It was only the EU-Unicef and the State government sharing the whole project cost, with the EU-Unicef taking up the **75%** of the total cost. Due to some challenges faced in the ninth EDF programme, the European Union is now to embark in its tenth EDF projects but now with a different fund-sharing plan. In this tenth EDF programme to come up in the State, there focal points are only but in two local Government areas, Aguata and Anambra East. The fund-sharing outline to be adopted in this forthcoming tenth EDF projects is the same sharing arrangement that was used at the tail end of the ninth EDF programme. However, it will be a reconciliatory effort to note relevant technologies and management choices in this forthcoming tenth EDF Programme for a positive wave of intents in propagating its aims and objectives in the State. Many rural water projects were completed during this period of ninth EDF Programme in the State and some of these were hand pump boreholes, motorized boreholes and solar powered boreholes. In **2008**, EU-Unicef (Phase-1 community Borehole works (50 by 6Bhs)) and other fund assisting groups like the federal government, state government, local government and the benefitting communities completed nine hand pump boreholes at different locations in Ogbaru local government Area of the State. These built borehole locations were as follow Umueze-Akili Ogidi, Umuedem-Akili Ogidi, Igbuzor-Ossomala, Isiolu-Ossomala, Ugolo-Ossomala, Community Primary school Akili Ogidi, Community Primary School Umunankwo, Community Primary School Ossomala and Community Primary School Ogbakuba. However it is also right to note that the EU-Unicef was the sole sponsor of the last four water borehole projects from the list of the Water boreholes built in Ogbaru in **2008**. Further water projects extensions were also completed in **2011** which were still under phase-1 programme, these water boreholes were part of the first twenty borehole projects solely sponsored by EU-Unicef for various primary schools in Ogbaru, Anambra East, Nnewi North, Aguata, Idemmilli. **2009** was characterized by a change in use of technologies basically from mostly hand pump water boreholes to motorized water boreholes, and their number total thirty eight but with only four hand pump boreholes during this **2009** EU-Unicef phase-1 Community borehole works project. These Water borehole projects were built in the different locations in the five aforementioned chosen local government areas in the State. EU-UNICEF Phase-2 community borehole works (RUWASSA outstanding site contracts) started in **2010** and many hand pump boreholes were built in different communities in Ogbaru, and these projects were sponsored by various financial donors(EU-Unicef , FGN , State Govt, LG , and benefitting community). In 2011, EU-Unicef Additional Fund Project (Anambra Reward Project) projects started in various Secondary schools in the State, but this time is was not restricted only to the five local government areas alone. All the water boreholes built during this programme were all solar powered boreholes and was jointly sponsored by EU-Unicef and the State government. EU-Unicef SRIP (Support to reforming Institutions Programme) II social Investment programme which was jointly sponsored by EU-Unicef and the State government was carried out in thirty different site locations/Communities in Ogbaru local government area in **2012**, and they were all solar powered water boreholes. Subsequent to the **2012** flooding in Anambra State that devastated and polluted all of drinking water sources in the Anambra West, Bill and Melinda Gate gave out alms to support the affected population as regard safe drinking water points. Ten hand pump water boreholes were completed in **2013** in Anambra West under Bill and Melinda Gates foundation (BMGF) Flood emergency water projects. In addition to the **2013** completed borehole projects in the state, Unicef Central Emergency Relief Fund (CERF) in collaboration with Bill and Melinda Gates Foundation (BMGF) Flood Emergency Water Projects jointly funded to completion three solar water boreholes built in two local governments (Anambra East and Anambra West).

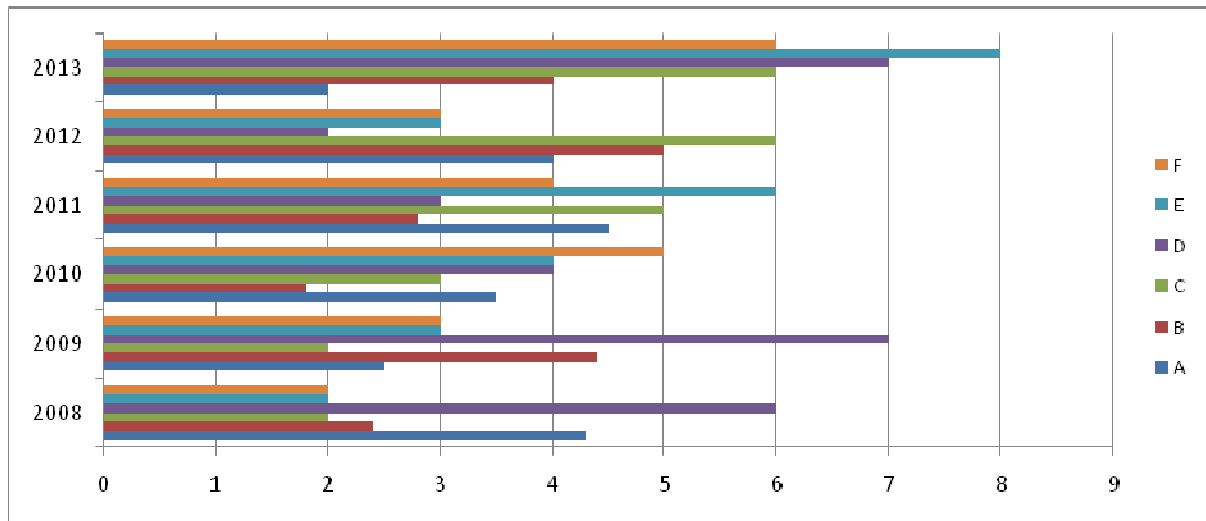


Fig.3. Represent number of water boreholes completed in the State per annum.

The legends

- A = Total number of boreholes completed in the state per annum,
- B= No. of EU-Unicef/ FGN/State/LG/Com-sponsored boreholes (completed)
- C = No. of EU-Unicef/State-sponsored boreholes (completed)
- D = No. of EU-Unicef sole-sponsored boreholes (completed)
- E = No. of Bill and Melinda Gates Foundation-sponsored boreholes (completed)
- F=No. of Central Emergency Relief Fund (CERF) & Bill and Melinda Gates Foundation (BMGF)-sponsored boreholes (completed).

The bar chart of **figure 4.1** represents the annual distribution of water projects completed in the state, along with the sponsors and co-sponsors. The bar chart lucidly describes unstable achievements in rural water delivery in the State. With a considerable number of water borehole projects completed in **2009** at the Ninth EDF rural water programme where the EU-Unicef jointly sponsored water projects across the state with the three government tiers ,together with the benefitting communities. The year **2010** showed a sharp decline from the number of boreholes completed from thirty four in the previous year to fourteen and this decline as was gathered from exclusive interviews with some of the water experts that were involved in the programme was as a result of delayed funding from the Federal government. Considerable water boreholes were also completed in **2010** with the initial funding ratio, before another funding template was introduced at the tail end of the year where these rural water projects are now jointly sponsored by EU-Unicef and the State government only.EU-Unicef and State government funding ratio was used starting from the tail end of **2011** to **2012** where the water boreholes completed in the these years were funded jointly by both bodies/establishments. This EU-Unicef/State government funding partnership was a very positive collaborative effort in containing the problems of delayed funding experienced from **2008** to the tail end of **2011**, where the federal government, State government, local government and the benefitting communities were all part of the fund sharing team in conjunction with the EU-Unicef. This fund sharing Unification between the EU-Unicef and the State government as it reflects on the bar chart above, showed a steep increase on the number of water boreholes completed in the rural areas in the State from twenty four in **2011** to thirty in **2011**. It is also paramount to acknowledge the efforts and relentless contributions made by the very last government administration of the State in providing water to remote rural communities in the State, by providing their own percentage share of the required fund wholly and timely. EU-Unicef solely sponsored some of the water projects in the State starting from **2008** to **2011**, and this project was tagged EU-Unicef Phase-1 school borehole work and was successfully done in eighteen primary schools in the State. Flooding of **2012** basically in the western part of the State were many water sources were contaminated and some water points damaged by the flood devastation, attracted huge support from Bill and Melinda Gate foundation (BMGF) and also from the Central Emergency Relief Fund (CERF). Bill and Melinda Gate under their charity foundation (BMGF) solely built ten water boreholes all in various locations in the flood devastated regions in the State. In **2013**, Central Emergency Relief Fund (CERF) in partnership with the Bill and Melinda Gate Foundation (BMGF) built more three water boreholes to the flood devastated regions/communities in the State.

4.2 Some odds affecting sustainability of rural water delivery in Anambra State rural water schemes:

- 1) Exclusion of concerned community members in developmental planning.
- 2) Dormant rural water policy propagation in the State.

- 3) Power problems:-most water projects in the State are using submersible water pumps with overhead tanks, powered by electricity.
- 4) Though solar powered pumps were later introduced as an alternate power source, which is environmental and atmospheric friendly by not depleting the ozone layer but it also has its own shortcomings. The major disadvantage of this is low water pumping speed which fluctuates as the weather condition changes and thereby taking much time in serving few people most time.
- 5) Most households have and operate individual boreholes and as a result have resulted in dereliction towards few functioning government imposed water projects in the state in the time of major breakdown.
- 6) Poor design and location of overhead water supply tanks, some of these tanks are located at valleys with low pressure to transport water some far distances from the reserve.
- 7) The water sanitation and hygiene committee whose role's covers operation and maintenance of water supply system in the long term are virtually non-functional or latent in their operations in the State.
- 8) Poor coordination of WASH Programs which is paramount in the maintenance of constructed facilities in the benefitting communities, caused by lack of fund
- 9) No routine maintenance of these water supply systems by the supposed Wash Committee maintenance technicians. Most maintenance on these water systems are mainly carried out at the time of major breakdown of the system, and these repairs are often done or sponsored by some individual donor's from the community. It is also pertinent to note also as the recent evaluation of AusAID WASH work States, "without a functioning water user group, community management is highly likely to fail and eventually this will cause the water supply systems to fail" (AusAID, 2009).
- 10) Some of these rural water projects were located in sparsely populated regions in the communities that wield strong political influence thereby failed to serve the deserved water needs on some dense population with weak political influence to attract projects in their various communities.
- 11) Inadequate fund for replication of programmes/projects in non-focal communities and LGAs since the major sponsors (EU/UNICEF) of most of these water projects mainly focused their fund and resources on some selected communities and these have also affected the spread of RUWASSA activities due to fund limitations.

It is evident to note that community management approach are often undermined by lack of formalization of arrangements such as community cohesion, common participation in the broader user community and informal accountability to a rural water committee and recognition within local government bye-laws and national legislation policy. These undermined factors have resulted to a lack of professional capacity in certain aspects of running and managing of the systems. Ideally, Community management approach is a hoped management framework with a clear separation of functions but in reality not much has changed in practice due to negligence to some vital sustainability parameters during implementation. It is only by professionalization of this approach will such aforementioned arrangements be made sustainable

4.3. Community-government partnership: an approach for solving rural water problems in the state.

In this approach, the government role goes beyond designing and constructing systems based on community needs, but extends further on proactive monitoring facilities and maintenance in conjunction with the community on the use of the existing ones. The government is an internal stakeholder by sole investing in water projects with expectation in terms of civil satisfaction, improved health, optimal facility utilization, minimal maintenance cost of facilities etc. The idea in this kind of partnership is to use an approach and tactics that are effective, acknowledging the dire need for effective coordination, greater competency in relational issues and general management of both stakeholders (community members and governments). Rural water projects are dynamics in nature, the choice and use of any engagement approach or combination of approaches is always circumspect. This is a worthwhile engagement approach that familiarizes with the strength and weaknesses inherent in other management approach, and are able to use these effectively and circumspectly.

Table 1.0 Relational stages in community-government partnership (A-B-C-A).

A	B	C
Consultation	Partnership	Regular supply of information with salient feedback stream.

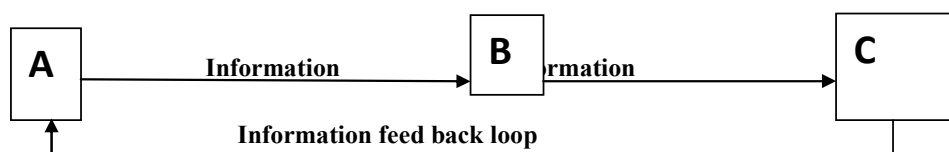


Figure 4. diagrammatic representation of information flow in Community-government partnership model in operations.

Consultation stage: at this consultation stage, the governments, and the community members discuss on the project, starting with the pre-project planning, site mapping, location layout, and also on the appropriate technology to be used. Pre- project planning in an integral part of this approach and will be well discussed at the later part of this paper.

Partnership stage: The results and information from the elementary stage of the project deliberations are consolidated at this stage. Good relational pathways created from inception of the projects are now well communicated. Roles, legitimacy, influence, rights of partnering members are well known as well as roles and responsibilities are shared among the parties.

4.3 Scaling up: a positive viewpoint in sustaining rural water projects.

Many literatures by some of the researchers had often used conceptual words like scaling up and sustainability as concepts needed to move away from a focus on the community management unit only, and towards working with organizations of intermediate unit. For some decades now in some developing economies, sustainability concepts have been liberally used in the water sector, and this has poised a lot of challenges towards attainment of the much acclaimed Millennium Development Goals (MDGs) initiatives. According to Lockwood .H and Smit S. (2011) in the more specific context of the rural water sector, many organizations define sustainability as the maintenance of the perceived benefit of investment projects (including convenience, time savings, livelihoods or health improvements) after the end of the active period of implementation. One may ask what professionalization stands for in community management discourse, how scaling-up, and sustainability factors match as a transitional route to a more formidable rural water management strategy. An extensive literature has been written on the subject 'scaling up' with no universally accepted definition. Interest in this topic stems from the wide spread concern that the visions implied in the Millennium Development Goals, the platform for Action of the International Conference on population and Development and other International summits are not being achieved as fast and effectively as intended (ExpandNet-WHO, 2010). Arguments for scaling up are readily available as practitioners, policy-makers, researchers and funding agencies would agree that there is a substantial body of knowledge available, but often produced in a narrow academic context where it has not been communicated widely (Gundel et al, 2001). To this broad contentious subject 'scaling up', we simply mean more positive changes in the way we work or do things. In a thematic overview paper by Lockwood H. in (2004) titled scaling up community management of rural water supply; the researcher noted one of the key concepts in scaling up rural water supply as transition from a water supply project approach, which is limited in time and space, to a water supply service approach which supports full coverage over an indefinite time period. In order words to make good this transition shift, there is every need for having a well established hierarchical framework with assigned roles to support water supply service approach of an indefinite time period.

4.4 Pre-Project planning: part of the key solutions to rural water problems in Anambra State.

Before rural water project is to be initiated, there is a basic need for a proper planning. This could be in the form of preliminary project planning and pre-project plans. By adopting a method described in Kentucky water projects planning and implementation procedural manual of June 2006. In this procedure manual, planning process is divided into three individual unit or hierarchy of planning/reporting.

1. Community centered planning
2. District water management council planning
3. State water management plan

- **Community centered planning:** is local planning unit that originates from the local community, this should be instituted in a way to capture community needs which includes natural resources, economic development, agriculture, technology, administrative and governance. The pivotal step in the local planning unit is community participation.

- **District water management planning:** this unit is a regional forum comprising of local elected and appointed water service coordinator hired by the council. This district water management planning council could be of any number (21 in conformity with the number of local government councils in the State). Each of this council should be charged to develop an Area water management plan; an important task of this unit is to Identify proposed water projects. Active participation in the area water management planning will assure that the water needs of all members of the community will be considered and balanced with the ultimate goal of providing and sustaining clean water for all Anambrarians in the rural communities.

- The planning process begins with a community initiated project, and this project is presented to the Area water management council in the form of project profile. At this point, the project is determined to be coherent with both the Area and State water management plan. The project is then moved to the point of full implementation.

5.0 Conclusion

In conclusion, there have been a lot of debate on rural water supply in most developing economy of the world and this debate has given rise to various practical approaches for managing rural water projects. This has posed

many questions to many researchers, whilst some have tried in their various studies to arrive to eventual change that would bring about the greatest improvement in the sustainability of rural water supply projects in Anambra State, some have also noted complex parameters that defies an ultimate management approach that will be applicable in all situations in all the rural communities faced with water challenges. Every community has its own unique communal makeup's that characterize it from others and may be in form of Culture variations, social values, women participation, literacy level, stakeholder's participation, environmental factor, government policies, community leadership, technological relevance etc. A balanced Community-Government partnership as suggested in this paper is the most appropriate management approach that will ameliorate rural water problems in Anambra State. A collaborative management partnering approach of this sort should be adopted where the community retains strategic ownership and control of its own system, whilst the government are able to bring efficiency and improved technical know-how, governed by clearly defined contractual arrangement. The range of this partnering integration is embedded in Nigeria water policy, and the age-long community centered approach has also been in practice, a contractual arrangement of this kind will ensure long-term sustainability of water supply services. It will be a fair venture in adopting this integration practice in rural water projects referencing the federal government cognizance of the shared responsibilities of government body in conjunction with the subject communities. However, the success of this community-government approach lies on proper identification and tackling completely the aforementioned problems inherent in the common practiced community centered approach, without which the rural water problems still persist.

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